

[54] **ELECTROPHORETIC MATRIX PANEL**

[75] Inventors: Shinichi Noma, Katano; Nobumasa Ohshima, Hirakata, both of Japan

[73] Assignee: Matsushita Electric Industrial Co., Ltd., Japan

[21] Appl. No.: 607,902

[22] Filed: Aug. 26, 1975

[30] **Foreign Application Priority Data**

Aug. 28, 1974 Japan ..... 49-99344  
Aug. 29, 1974 Japan ..... 49-99665

[51] Int. Cl.<sup>2</sup> ..... C25D 1/12; G03G 13/00

[52] U.S. Cl. .... 204/299 R; 96/1 R;  
96/1 PE; 204/180 R; 204/181; 355/5

[58] Field of Search ..... 204/180 R, 181, 299;  
96/1.3, 1 PE, 1 R, 1 A, 1.2, 1.5, 1.7; 350/160 R;  
313/518, 521; 355/3 R, 5, 4

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

3,737,311	6/1973	Wells	96/1.3 X
3,772,010	11/1973	Weiss	96/1.3 X
3,804,620	4/1974	Wells	96/1.3
3,850,627	11/1974	Wells et al.	96/1.3
3,857,708	12/1974	Verhille et al.	96/1.7 X
3,894,870	7/1975	Kinoshita et al.	96/1.5

3,928,036	12/1975	Jones	96/1.5
3,941,594	3/1976	Honjo et al.	96/1.5 X

*Primary Examiner*—Arthur C. Prescott

*Attorney, Agent, or Firm*—Wenderoth, Lind & Ponack

[57]

**ABSTRACT**

An electrophoretic matrix display panel is composed of a first insulating substrate having a first set of strip-shaped parallel electrodes thereon and a voltage non-linear resistive layer on the first set of parallel electrodes. Dot-shaped intermediate electrodes isolated from each other are positioned on the voltage non-linear resistive layer, and an electrophoretic suspension layer consisting of a suspending medium and at least one electrophoretic material suspended therein is placed over the intermediate electrodes and contained thereon by a frame. A second set of parallel electrodes extending in a direction transverse to the direction of the first set of electrodes is placed over the frame and the electrophoretic suspension layer, and a second insulating substrate is provided thereover. The two sets of parallel electrodes cross to define cross points at which the dot-shaped intermediate electrodes are positioned and which constitute picture elements of the matrix display panel.

**4 Claims, 4 Drawing Figures**

